

## **Major-Minor Perception by Musicians and Nonmusicians**

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Composers often use major modes to indicate more positive moods (*Happy Birthday*) and minor modes to indicate sadder or more contemplative moods (*Greensleeves*). Major and minor scales differ from one another by only one or two scale (“critical”) notes. This difference is very apparent to musicians, and to nonmusicians if they are making affective judgments by classifying a tune as “happy” or “sad”. But nonmusicians perform poorly if asked to make the same judgment using musical labels of “major” and “minor”. This disparity among nonmusicians is quite resistant to various kinds of training. I will present some behavioral studies exploring this divergence between affective and analytical processing routes, and then discuss two ERP studies that shed light on the different strategies that musicians and nonmusicians use to distinguish the two modes. In particular, musicians have a strong neural response to the first note that denotes a tune as minor, but not to the major equivalent. Thus it seems that to musicians’ brains, all tunes are major until they turn minor! However, the neural basis for nonmusicians’ decisions is unclear. Their brain does not evince a time-locked response to this decision, even when they successfully discriminate happy from sad tunes. This disparity can serve as an example of experience-based plasticity in classification responses.